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**In the Supreme Court of the United States**

OCTOBER TERM, 1975

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ENVIRONMENTAL PROTECTION AGENCY, PETITIONER

v.

DUQUESNE LIGHT COMPANY, ET AL.

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PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES  
COURT OF APPEALS FOR THE THIRD CIRCUIT

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8/24/76

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The Solicitor General, on behalf of the Environmental Protection Agency, petitions for a writ of certiorari to review the judgment of the United States Court of Appeals for the Third Circuit in this case.

OPINION BELOW

The opinion of the court of appeals (App. A, *infra*) is not yet reported.

JURISDICTION

The judgment of the court of appeals was entered on August 21, 1975. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

(1)

## QUESTION PRESENTED

Whether, prior to approving a state implementation plan under Section 110(a)(2) of the Clean Air Act, as amended, 84 Stat. 1680, 42 U.S.C. 1857c-5(a)(2), the Administrator of the Environmental Protection Agency is required to determine that no sources of emissions in the State will be unable, due to economic or technological infeasibility, to comply with the plan's requirements.

## STATUTE INVOLVED

Section 110(a)(2) of the Clean Air Act, as amended, 84 Stat. 1680, 42 U.S.C. 1857c-5(a)(2), is set forth in Appendix B, *infra*.

## STATEMENT

Section 110(a)(1) of the Clean Air Act, 42 U.S.C. 1857c-5(a)(1), requires each State to adopt and submit to the Administrator of the Environmental Protection Agency ("EPA") a plan providing for the implementation, maintenance, and enforcement of the national "primary" and "secondary" ambient air quality standards<sup>1</sup> within the air quality control regions in that State. The Administrator must approve or disapprove a state plan within four months of its submission. 42 U.S.C. 1857c-5(a)(2). If he determines that the plan meets the requirements of Section 110(a)(2)(A) to (H), 42 U.S.C. 1857c-5(a)(2)(A) to

<sup>1</sup> National primary standards are those "requisite to protect the public health," while secondary standards are those "requisite to protect the public welfare." Section 109(b), 42 U.S.C. 1857c-4(b).

(H), he is required to approve the plan. If he finds the State plan deficient, then he must disapprove it and, after giving the State an opportunity to revise the plan, propose and promulgate his own regulations correcting the deficiency. 42 U.S.C. 1857c-5(c).

On January 27, 1972, the Commonwealth of Pennsylvania submitted its implementation plan to the Administrator, who, on May 31, 1972, approved the provisions of the plan at issue here. 37 Fed. Reg. 10842, *et seq.* On June 26, 1972, respondents filed in the court of appeals a petition for review challenging the Administrator's approval of the Pennsylvania plan. One of the grounds on which respondents challenged EPA's approval was that certain of the emission limitations concerning sulfur oxides (25 Pa. Code Regs. § 123.21(b)), were economically and technologically infeasible as applied to respondents' power plants located in southwestern Pennsylvania.<sup>2</sup> Having consolidated the petition for review with another such petition,<sup>3</sup> the court of appeals initially decided that

<sup>2</sup> Respondent Duquesne Light Company operates three power plants in Allegheny and Washington Counties, Pennsylvania. Pennsylvania Power Company operates a power station in New Castle, Pennsylvania. These respondents and respondent Ohio Edison Company are co-owners of a power plant under construction in Shippingport, Pennsylvania.

<sup>3</sup> The other petition was filed by St. Joe Minerals Corporation, which challenged EPA's approval on the ground that certain of the emission limitations concerning sulfur oxides were infeasible on economic and technological grounds as applied to its zinc smelter at Monaca, Pennsylvania. See *St. Joe Minerals Corp. v.*

EPA was required either to give the petitioners before it a hearing concerning their claims of infeasibility or to defer enforcement of the plan against them pending resolution of their challenges to the plan at the state level. *Duquesne Light Co. v. Environmental Protection Agency*, 481 F. 2d 1, 10 (C.A. 3). On remand EPA elected the first alternative and, after providing an opportunity for comments by both sides on the feasibility issues, filed with the court of appeals the augmented record and its conclusion that the sulfur oxide emission limitations of the Pennsylvania plan were technologically and economically feasible as applied to respondents' power plants.<sup>4</sup>

In the proceeding which is the subject of the instant petition, the court of appeals reaffirmed its view that economic impracticality or technological infeasibility of a particular implementation plan provision are grounds for disapproval of the provision by EPA (App. A, *infra*, pp. 13a, 17a-19a, 23a n. 36). On review of the record, moreover, the court found that EPA on remand had failed to review in sufficient detail the economic impact of the sulfur oxides emission limitation on the respondents and their customers (*id.* at 13a-17a). The court vacated EPA's approval of the Pennsylvania implementation plan as it relates

*Environmental Protection Agency*, 508 F. 2d 743 (C.A. 3), petition for a writ of certiorari filed June 28, 1975, No. 74-1650; note 6, *infra*.

<sup>4</sup> After EPA's decision respondents moved in the court of appeals for a second remand to give them an opportunity to rebut information in a report relied upon by EPA. On June 5, 1974, the court ordered a second remand for that purpose (App. A, *infra*, p. 8a).

to respondents' power plants and remanded the action to the agency for review of the economic practicality, as well as technological feasibility (*id.* at 17a-19a), of this portion of the plan.

#### REASONS FOR GRANTING THE WRIT

The question presented in this case is for all relevant purposes the same as that presented in *Union Electric Co. v. Environmental Protection Agency*, 515 F. 2d 206 (C.A. 8), petition for a writ of certiorari granted October 6, 1975, No. 74-1542.

Dismissing the petition for review in *Union Electric* for lack of jurisdiction, the court of appeals there held that under Section 307(b)(1) of the Act (42 U.S.C. 1857h-5(b)(1)) it had authority to set aside the Administrator's approval of a state implementation plan only on grounds that would have required the Administrator to disapprove the plan and that claims of economic or technological infeasibility did not constitute such grounds.<sup>5</sup> However, the court of appeals in the instant case proceeded on the basis that

<sup>5</sup> The Court's grant of the petition for a writ of certiorari in *Union Electric Co.*, *supra*, was limited to the first question presented by the petition (p. 2), which reads as follows: "1. Does the Section of the Clean Air Act (Section 307(b)(1)), which provides for judicial review by the Court of Appeals of EPA approval of sulfur dioxide emission regulations in the Missouri implementation plan, prevent the Court of Appeals from considering technological and economic factors applicable to petitioner and such regulations, when the petition for judicial review was filed more than 30 days after EPA approval of such plan, when such technological and economic factors arose more than 30 days after EPA approval and when those factors make it impossible for petitioner to comply with those regulations and manifestly against the public interest for it to attempt to do so?"

the EPA Administrator has the duty to consider the economic and technological feasibility of a state implementation plan and, if he finds it infeasible in either respect, to disapprove it.<sup>6</sup>

Whether the Administrator has an obligation under the Act to consider economic and technological difficulties of compliance by point sources of pollution in determining if he will approve a state implementation plan is thus the basic issue presented in *Union Electric* and in this case. The decision of the court below, ordering the Administrator to consider further respondents' contentions of economic and technological infeasibility, assumes not only that the Administrator must evaluate and weigh these factors but also that he must disapprove a state implementation plan if he

<sup>6</sup>In *St. Joe Minerals Corp. v. Environmental Protection Agency*, 58 F.2d 743, 747 (C.A. 3), petition for a writ of certiorari filed June 28, 1975, No. 74-1650, the court of appeals stated: "[A]n interpretation of the Clean Air Act Amendments empowering the Administrator to disapprove the Pennsylvania plan if he finds it technologically unworkable is implicit in our decision in *Duquesne Light*. If the Administrator has no authority to disapprove such plan or provision, there would have been no cause to remand the case to the EPA so as to conduct a hearing on precisely this subject. Indeed, the agency argued in *Duquesne Light*, in urging a denial of the remand, that the statute had not intended the Administrator to consider economic and technological factors. Yet we ordered the remand."

In view of a proposed amendment to the state implementation plan that may render *St. Joe* moot, we filed with the Court on September 25, 1975, a motion to defer consideration of the petition for a writ of certiorari, pending EPA's disposition of the proposed amendment.

We are serving upon respondent's counsel in this case a copy of our petition in *St. Joe* and our memorandum in *Union Electric*.

accepts the contentions. However, if the Court holds in *Union Electric* that the Administrator has no such obligation under the Act, as we there argue, the court of appeals in this case erred in requiring the Administrator to find, as a prerequisite for valid approval of a state implementation plan, that compliance would be economically and technologically feasible.

#### CONCLUSION

The Court should defer consideration of this petition for a writ of certiorari until after it has decided *Union Electric Co.*, No. 74-1542.

Respectfully submitted.

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NOVEMBER 1975.

APPENDIX A

UNITED STATES COURT OF APPEALS  
FOR THE THIRD CIRCUIT

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No. 72-1542

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DUQUESNE LIGHT COMPANY, PENNSYLVANIA  
POWER COMPANY and OHIO EDISON COM-  
PANY,

*Petitioners*

*v.*

ENVIRONMENTAL PROTECTION AGENCY,

*Respondent*

---

ON PETITION FOR REVIEW OF THE ORDER OF THE  
ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

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Argued May 12, 1975

Before: ADAMS, ROSENN and HUNTER, *Circuit Judges.*

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# OPINION OF THE COURT

(Filed August 21, 1975)

ADAMS, Circuit Judge.

Resolution of this appeal requires us to address two principal issues with respect to the approval by the Administrator of the Environmental Protection Agency of the sulfur oxide emission limitations in the implementation plan adopted by Pennsylvania in response to the Clean Air Act Amendments of 1970:<sup>1</sup>

- (1) Did the Administrator act arbitrarily in concluding that compliance with the challenged emission limitations within the time allowed by the plan is economically feasible for the petitioning utilities' coal-burning electric generating plants through the use of flue gas desulfurization devices?
- (2) Did the Administrator act arbitrarily when he concluded that conformity with the sulfur oxide emission limitations by the petitioners' coal-burning generators was technologically feasible?

## The Statutory Scheme

Essential to an understanding of the issues in this case is a brief overview of the program established by the 1970 amendments to the Clean Air Act for purging the nation's atmosphere of detrimental amounts of synthetically produced substances. The Administrator of the Environmental Protection Agency (EPA) is directed to fix national primary<sup>2</sup> and secondary<sup>3</sup> standards governing the permissible concentration in the ambient air throughout the country of each pollutant deemed by the Administrator to

1. 42 U.S.C. §§ 1857-1858a.

2. Primary ambient air quality standards are those necessary, in the Administrator's judgment, to protect public health. 42 U.S.C. § 1857c-4.

3. Secondary ambient air quality standards are those necessary, in the Administrator's judgment, to preserve the general welfare. 42 U.S.C. § 1857c-4.

have an adverse impact upon the national health or welfare.<sup>4</sup>

Each state is required to design an air pollution control scheme, called an implementation plan, by which the emissions from existing stationary sources<sup>5</sup> of impurities will be controlled at least to the degree necessary to attain the national standards. Thus the extent of the controls to be imposed on different types of polluters so as to achieve the mandated overall level of purity was left, in the first instance, to the states.

Each implementation plan must be submitted to the Administrator. He is to approve or disapprove each plan within four months of its submission. Before sanctioning a plan the EPA must determine, *inter alia*, that it provides for achieving the primary air quality standards "as expeditiously as practicable but . . . in no case later than three years from the date of approval of such plan."<sup>6</sup> This Court has indicated that in deciding whether to approve an implementation plan the agency must review its technological and economic feasibility.<sup>7</sup>

Upon the Administrator's approval of an implementation plan, he may enforce the plan, presumably already enforceable by the state, as a federal regulation. The Administrator is to notify any person known to be in violation of the applicable implementation plan. If the violation persists more than 30 days after the issuance of a notice of violation, the EPA may enter an order requiring

4. 42 U.S.C. §§ 1857c-3, 1857c-4.

5. The act directed the EPA to adopt limitations governing emissions by new stationary sources of pollutants and by mobile sources such as automobiles. See 42 U.S.C. §§ 1857c-6, 1857f-1 et seq.

6. 42 U.S.C. § 1857c-5(a)(2). For a description of the process of EPA review, see *St. Joe Minerals Corp. v. Environmental Protection Agency*, 508 F.2d 743, 749 (3d Cir. 1975), *petition for cert. filed*, 44 U.S.L.W. 3001 (July 8, 1975).

7. *St. Joe Minerals*, 508 F.2d 743; *Duquesne Light Co. v. Environmental Protection Agency*, 481 F.2d 1 (3d Cir. 1973) [hereafter *Duquesne Light I*]; *Getty Oil Co. v. Environmental Protection Agency*, 467 F.2d 349 (3d Cir. 1972), cert. denied 409 U.S. 1125 (1973). See also *Appalachian Power Co. v. Environmental Protection Agency*, 477 F.2d 495 (4th Cir. 1973); *Buckeye Power, Inc. v. Environmental Protection Agency*, 481 F.2d 162 (6th Cir. 1973).

compliance by the polluter, or may bring an action in the district court to enjoin further disobedience. In addition, any person who knowingly violates the provisions of the applicable implementation plan more than 30 days after the issuance of a notice of violation, or who fails to conform to the requirements of a compliance order, is subject to a \$25,000 fine or imprisonment.<sup>8</sup>

Any person aggrieved by the Administrator's action in approving an implementation plan may, within 30 days after the Administrator's approval of the plan, petition the appropriate court of appeals for review of that decision.

With one limited exception,<sup>9</sup> the statute provides that "[a]ction of the Administrator with respect to which review could have been obtained [in a court of appeals within 30 days after the approval] shall not be subject to judicial review in civil or criminal proceedings for enforcement."<sup>10</sup> In *Getty Oil Co. v. Ruckelshaus*,<sup>11</sup> this Court interpreted the statute as barring the courts from entertaining claims regarding the technological or economic infeasibility of an implementation plan after the expiration of the 30 day period.

#### *The Controversy Before The Court*

Petitioners—Duquesne Light Co., Pennsylvania Power Co. and Ohio Edison Co.—are electric utility companies operating coal-fired generating plants in Pennsylvania.

The Administrator designated sulfur oxides as a pollutant hazardous to the public health and welfare, and then promulgated primary and secondary ambient air standards regulating the maximum permissible concentration of the sulfur oxides in the atmosphere. Nearly 60% of the sulfur oxides polluting the nation's air, estimates the EPA, result from the generation of electricity.

8. 42 U.S.C. § 1857c-8.

9. 42 U.S.C. § 1857h-5(b).

10. 42 U.S.C. § 1857h-5(b)(2).

11. 467 F.2d 349 (3d Cir. 1972), cert. denied 409 U.S. 1125 (1973).

During December, 1971, Pennsylvania held four days of hearings focused on the control of sulfur oxides. In January of the following year Pennsylvania submitted to the Administrator an implementation plan which provided that, because of their size and location, the coal-burning generators owned by these electric companies must restrict their discharge of sulfur oxides to 0.6 pounds of pollutants per million BTU's of heat input to the combustion equipment.<sup>12</sup> On May 31, 1972, the Administrator, without holding any additional hearings, approved the emission limitation.<sup>13</sup>

The Pennsylvania plan restricts the amount of sulfur oxides which may be emitted from the smokestacks of the generating stations. It does not specify the means by which the emission restrictions must be met. Theoretically the utilities have three alternative methods by which to reduce the volume of sulfur oxides released into the atmosphere: (1) burn low-sulfur coal; (2) obtain high-sulfur coal and clean it before burning it; and (3) burn high sulfur coal and cleanse the exhaust gases through use of flue gas desulfurization devices, commonly referred to as scrubbers. The EPA and the utilities agree that low-sulfur coal is presently scarce and will not be available to satisfy the needs of the utility industry for at least five years. Nor will it be feasible until the 1980's, EPA admits, to clean coal before burning it, because the necessary technology for coal liquification or gasification is not available. The Administrator therefore has predicated his sulfur oxide control strategy on purifying flue gases through the use of scrubbers.

In 1970 Duquesne Light began experimenting with a flue gas desulfurization device for a 400-megawatt generator at its Phillips power station. After an expenditure of approximately \$42 million on the project, the Phillips scrubber

12. 2 Pa. Bull. 388 (Mar. 4, 1972).

13. 37 Fed. Reg. 10842, 10889-91.

was not, at the time of the Administrator's decision, operating on a reliable basis. It had been shut down for modifications much of the time since operations had begun.

The three petitioners are joint owners of a new 1650-megawatt coal-burning generating plant at Shippingport, Pa., which is also designed to incorporate flue gas desulfurization equipment. That facility, however, had not reached the operational stage at the time of the EPA's decision.

Because of the high concentration of pollutants in the air in the regions in which the generators operated by these companies are located, conformity with the Pennsylvania implementation plan would require that they—unlike most coal-burning electric companies across the country—install scrubbers on each of their generating plants. Construction of the necessary facilities would cost Duquesne Light an estimated \$202 million.<sup>14</sup> Annual operating and maintenance expenses for the scrubbers would total \$56 million. If Duquesne Light installed all the scrubbers required by the Pennsylvania plan and passed the additional cost on to the consumers, as EPA recommends, an average 23% increase in cost of electric service would result. For customers of Pennsylvania Power the increase in cost is estimated at 34.91%.

#### *Prior Proceedings*

Duquesne Light, Pennsylvania Power and Ohio Edison timely petitioned this Court to review the Administrator's initial approval of the Pennsylvania plan. The utilities alleged at that time that the Administrator had not fulfilled certain procedural requirements and asked that the case be remanded to the agency. On January 22, 1973, we granted the motion for a remand without specifying

14. The EPA has conceded before this Court that the utilities' cost estimates correctly represent the magnitude of the expenditures involved. Indeed, these costs are in 1974 dollars and, as a result of inflation, are undoubtedly higher today.

the type of proceedings to be conducted by the EPA. The Administrator then asked the Court for clarification of the order or for a rehearing. After scrutinizing the records of the state proceedings we were not convinced that the utilities had been afforded "a truly meaningful hearing" with respect to the technological and economic feasibility of the plan. In addition, we stated that in the lapse of time since the state hearings, events had occurred which might render the plan obsolete. Accordingly, the Administrator was ordered (a) to suspend enforcement of the plan against these three utilities while they presented their infeasibility claims in the available state administrative and judicial forums or (b) to convene a hearing at which these companies could substantiate their assertions regarding the infeasibility of the plan.<sup>15</sup>

The EPA elected to conduct a hearing. The utilities were permitted to make written submissions as well as to present oral testimony. Although the hearing schedule suggested by the Court specifically afforded the Commonwealth of Pennsylvania an opportunity to provide the Administrator with comments and information in support of the implementation plan,<sup>16</sup> the Commonwealth advised the Administrator that it declined to do so.<sup>17</sup> The staff of the EPA thereupon undertook to defend the feasibility of the plan.

On March 15, 1974, the Administrator reaffirmed his approval of the Pennsylvania plan. He concluded that the sulfur oxide emission limitations applicable to these utilities are technologically and economically feasible. His determination relied in large part upon the Report of the EPA Hearing Panel of the National Public Hearings on

15. *Duquesne Light I*, 481 F.2d 1, 8-9.

16. *Id.* at 10.

17. The Commonwealth apparently advised the Administrator in a letter dated August 14, 1973 that it did not wish to defend the feasibility of the plan. No other written comments on the plan were presented by the Commonwealth. One state official appeared briefly at one of the EPA hearings to deny any responsibility for the technological and economic determinations embodied in the plan.

Power Plant Compliance with Sulfur Oxide Air Pollution Regulations [the Arlington Report]. That report was the product of a special hearing called by the EPA to review nationwide progress in compliance with sulfur oxide emission standards.

As a result of the Administrator's decision, Duquesne Light, Pennsylvania Power and Ohio Edison moved on April 10, 1974 for a second remand to the agency. The utilities argued that although at least some of them had been summoned to present certain evidence to the Arlington panel, the companies had not been parties to the Arlington hearings, and had not fully participated in them. In addition, the power companies asserted that the decision of the Arlington panel had not been filed until after the record of the agency's proceedings with respect to the Pennsylvania plan had been closed. This Court on June 5, 1974 ordered a second remand to enable the utilities to rebut the findings of the Arlington panel.

Pursuant to the second remand the companies presented further documentation, and an additional hearing was held on July 30, 1974. On September 17, 1974, the Administrator filed his response to the second remand. He informed the Court that "I hereby find that the Agency's use of the [Arlington Report] to affirm the existing approval of the Pennsylvania Plan, as it relates to the petitioners' power plants, was proper."

## II.

As a result of the Administrator's reendorsement of the sulfur oxide restrictions, the protesting utilities are once again before this Court. On this appeal they avow that the EPA has not given adequate attention to the economic impediments to their compliance with the Pennsylvania plan's sulfur oxide provisions. The EPA, the utilities assert, has not considered the economic and social dislocations which would result from the rate increases necessary to finance the required flue gas desulfurization

devices. Nor, the companies insist, has the EPA realistically appraised the likelihood of the state regulatory agency's allowing the enormous rate increases without which the utilities cannot defray the costs of construction and maintenance of the essential equipment. The utilities also contend that they will be unable to attract the volume of capital investment needed to purchase the required pollution control equipment. Adoption of the proposed implementation plan without a resolution of the above economic problems, the companies maintain, was arbitrary, capricious and an abuse of the agency's discretion.

The companies also claim that the EPA committed a clear error of judgment when it concluded that compliance with the emission limitations is technologically feasible. First, the companies argue that there are no devices available which will, on a reliable basis, significantly reduce the amount of sulfur oxide emissions from coal-burning electric generators. Even if there is some scrubber device available, continue the companies, there is no evidence that such equipment will sufficiently purify flue gases to enable their power plants to conform to the Pennsylvania emission restrictions. In addition, the utilities declare that installation of the type of flue gas desulfurization equipment that has demonstrated the greatest advances toward workability would in itself have an adverse ecological impact. Such scrubbers are said to create vast amounts of waste products for which there is no known disposal method that does not create a serious water pollution hazard. Finally, the utilities contend that the applicable sulfur oxide provision is grounded on erroneous air quality data and upon incorrect meteorological and topographical assumptions.

In adopting the Clean Air Act Amendments, the Administrator asserts, Congress decided that the expense of pollution control was not to be regarded as an impediment to achieving clean air. It is the Administrator's position that in light of that legislative judgment the costs of

achieving the Pennsylvania plan's sulfur oxide emission standard do not impose undue burdens on the power companies or their customers.

The EPA also contends that it was reasonable for the Administrator to determine from all the evidence before him, including that adduced at the Arlington hearing, that flue gas desulfurization technology is available and is transferable to the type of combustion units operated by Duquesne Light, Pennsylvania Power and Ohio Edison. The agency notes that the Administrator also cited reasons for ruling that suitable waste disposal technology is or will be available. In addition, the Administrator declares that he has considered and has reasonably rejected the utilities' objections to the air pollution estimates and to the pollution model underlying the challenged emission restraints.

We remand the matter so that the Administrator may resolve the likelihood of certain economic hardships that might result from enforcement of the plan.

### III.

The role of the judiciary when adjudicating a challenge to the lawfulness of administrative action is generally a limited one.<sup>18</sup> In particular, the scope of judicial review of an approval by the EPA of a state implementation plan is restricted to determining whether the Administrator's decision was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."<sup>19</sup> The Administrator's conduct is entitled to a presumption of regularity,<sup>20</sup> and a court is not at liberty to substitute its evaluation for that of an agency that is expert in the field.<sup>21</sup>

18. *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971).

19. *Delaware Citizens for Clean Air, Inc. v. Administrator*, 480 F.2d 972, 975-76 (3d Cir. 1973). Cf. *Pennsylvania v. Environmental Protection Agency*, 500 F.2d 246, 250, 254 (3d Cir. 1974). See also *Appalachian Power Co. v. Environmental Protection Agency*, 477 F.2d 495, 505 (4th Cir. 1973); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973); *CPC International, Inc. v. Train*, Nos. 74-1447-74-1449 (8th Cir., May 5, 1975).

20. *Delaware Citizens for Clean Air*, 480 F.2d at 976.

21. *Overton Park*, 401 U.S. at 416; *Delaware Citizens for Clean Air*, 480 F.2d at 976.

The judicial analysis of the Administrator's approval of an implementation plan to which the objector is entitled is nonetheless a rigorous one. In *Delaware Citizens for Clean Air*,<sup>22</sup> we embraced as guidelines for our inquiry in such cases the agenda for judicial review of agency action set out in the Supreme Court's opinion in *Overton Park*:<sup>23</sup>

[T]hat presumption [of regularity] is not to shield [the agency's] action from a thorough, probing, in-depth review. . . . Scrutiny of the facts does not end . . . with the determination that the [agency] has acted within the scope of [its] statutory authority. Section 706(2)(A) [of the Administrative Procedure Act] requires a finding that the actual choice made was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." . . . To make this finding the court must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.<sup>24</sup>

We must, therefore, ascertain whether the Administrator "has exercised a reasoned discretion."<sup>25</sup>

As experience with flue gas desulfurization equipment grows, so does the quantity of information regarding the

22. 480 F.2d at 976. See *Pennsylvania*, 500 F.2d at 250.

23. 401 U.S. at 415-16. See *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 434 (D.C. Cir. 1973).

24. The utilities argue that we should employ a substantial evidence test because a record was made in the EPA. However, the Supreme Court declared in *Overton Park* that the substantial evidence test is permissible "only when the agency action is taken pursuant to a rulemaking provision of the Administrative Procedure Act . . . or when the agency action is based on a public adjudicatory hearing." 401 U.S. at 414. Neither of those "specifically limited situations" is present here. See *Duquesne Light I*, 481 F.2d at 5-8; *Delaware Citizens for Clean Air*, 480 F.2d at 976.

Nor is judicial review limited, as it was in *Dunlop v. Buchowski* to an examination of the agency's statement of reasons supporting its decision, for the overriding congressional concern there for averting delay in order to avoid disrupting the normal functioning of labor unions is not present here. 43 U.S.L.W. 4669, 4672 (U.S., June 2, 1975). Cf. *Appalachian Power*, 477 F.2d at 506-07.

25. *International Harvester*, 478 F.2d at 648. See *South Terminal Corp. v. Environmental Protection Agency*, 504 F.2d 646, 661 (1st Cir. 1974).

feasibility of such systems. Since the function of the judiciary is not to derive its own conclusions from the mass of data available at any given time, but only to review the EPA's decision, and since the judiciary generally lacks the expertise necessary to assimilate such information independently, we will confine our inquiry to the facts available to the Administrator at the time of his decision.

The Pennsylvania plan has twice been remanded to the agency. Additional comments were added to the record each time the agency considered the matter. At oral argument in this Court the parties indicated we should evaluate the approval of the plan on the basis of the information of record in March, 1974. However, the case was again remanded to the agency in June, 1974. Although the Administrator did not at that time fully re-examine his position with respect to the plan, it seems appropriate that we consider his decision in light of the additional evidence produced at that time. On the other hand, the information developed subsequent to the Administrator's most recent deliberations concerning the Pennsylvania plan should first be evaluated by him rather than by the Court.<sup>26</sup>

26. Subsequent to the Administrator's final decision with respect to the Pennsylvania plan pursuant to the second remand, the EPA submitted directly to this Court EPA's September, 1974 Report on Flue Gas Desulfurization: Installations and Operations; Pedco's December, 1974 Report on FGD Status; a May, 1974 report on Health Consequences of Sulfur Oxides written by the EPA's Community Health and Environmental Surveillance System; and excerpts from the EPA's July, 1972 Report on Toxicology of Atmospheric Sulfur Oxide Decay Products.

The utilities asked the Court to consider the following new material: the Hearing Examiners' Report and Recommendations In the Matter of the Consolidated (Ohio) Electric Utility Cases before the Ohio Environmental Protection Agency; Robert J. Phillips, "Operating Experiences with a Commercial Dual Alkalai SO<sub>2</sub> Removal System;" H. Schimmel, T. J. Murawski, N. Gutfeld, "Relation of Pollution to Mortality in New York City, 1963-1972;" and excerpts from *Fortune* and *Electrical Week*.

On the day before oral argument in this case the EPA sent to the Court the March, 1975 report by the Commission on Natural Resources, the National Academy of Sciences, the National Academy of Engineering, and the National Research Council on *Air Quality And Stationary Source Emission Control*.

## IV.

After this Court in *Duquesne Light I* remanded to the EPA feasibility objections set forth by the petitioning companies, the agency received further submissions from the utilities and conducted additional hearings. The Administrator then declared:

After reviewing the [administrative] record [in the *Duquesne Light* proceeding] and the information available to me in the record of the National Public Hearings on Power Plant Compliance with Sulfur Oxide Air Pollution Regulations, I find that the sulfur dioxides emission standard of the Pennsylvania implementation plan as applied to [the plants of these utilities] are economically . . . feasible.

In support of the economic feasibility of the plan, the EPA argues that Congress intended the cost of complying with an implementation plan not be a barrier to achieving the primary air quality standards. In addition, the agency urges that the Administrator's conclusion regarding the economic feasibility of the Pennsylvania plan for these utilities is supported by the Arlington report. The Arlington panel, according to the EPA, assessed the costs of cleaning up the air and reasonably concluded that the costs are not unduly burdensome.

Although the contribution of a clean environment to public health and welfare, indeed to the quality of life, is inestimable, this Court has already decided that, contrary to the EPA's contention, the Clean Air Act contemplates that the economic impracticability of a particular implementation plan would be grounds for its rejection.<sup>27</sup> Repudiation of a particular implementation plan as unworkable, however, does not mean that attainment of the national ambient air quality standards is impractical. Rather, it means that the state or the EPA should formu-

27. *St. Joe Minerals*, 508 F.2d at 747, 748; *Duquesne Light I*, 481 F.2d at 8-9; *Getty Oil*, 467 F.2d 349.

late a different combination of restrictions upon the sundry sources of the contaminant.

Among the topics examined at the Arlington hearings was whether, on a nationwide basis, compliance with sulfur oxide emission limitations is economically feasible. The panel estimated that reaching the national primary sulfur oxide standard set by the Administrator would result by 1980 in a 3% increase in the national average cost of electricity. The concomitant increase in the electric industry's capital investment requirements was assessed at 4%. While the panel believed these expenses "substantial," it concluded that "the overall national costs will not impose an undue burden. . . ."

Both sides to this litigation acknowledge that because of variations in the purity of the air and in the density of fossil-fueled power plants in different regions, scrubbers would not be necessary at all power stations throughout the country. Duquesne Light, Pennsylvania Power and Ohio Edison, however, are required by the Pennsylvania plan to construct scrubbers for each of their coal-burning boilers in Pennsylvania. As already pointed out, Duquesne Light and Pennsylvania Power predict, and the Administrator has not questioned, that to offset the cost of these scrubbers the average increase in the price of their electricity would respectively be 23% and almost 35%, as opposed to the national average of 3%.

Although the Arlington panel did observe that in some areas rate increases might reach 20%, it did not specifically consider the economic impact of such increases upon the power companies so affected, or upon their customers. Similarly, the Administrator—in evaluating the Pennsylvania plan—apparently made no attempt to gauge the severity of the adverse consequences of the plan upon the individual utilities or upon the public which they serve. His only explanation to this Court of his conclusion that the plan is feasible for these companies is:

The National Panel also determined that, assuming a 3 mills/kw hour annualized cost and a 7.5 percent annual inflation factor, average increase in the price of electricity by 1980 would be about 3%. Duquesne is a regulated public utility which is allowed to obtain rate increases to maintain a reasonable return on investment. Control costs should, therefore, be passed on readily to its customers.

Thus the Administrator's statement in support of the plan merely declares that the costs should be passed on to the utilities' customers. He makes no attempt to evaluate the severity of the problems the companies have pointed to with respect to the unfavorable impact such increases may have on the economic structure of their service territories. A 23% or 35% increase may reasonably be expected to raise the cost of living and seriously to diminish the level of business activity, thus increasing the incidence of unemployment and occasioning considerable hardship to many people. The EPA has not sought to controvert the inference of a disadvantageous impact on the regional economy, nor has it sought to measure the magnitude of such effects.

The companies also argue that the Public Utilities Commission will be hesitant to permit the rate increases necessary to finance the scrubbers. They presented evidence that because of the current economic and political climate, utilities have experienced lengthy delays in obtaining rate increases necessary to meet inflating operating expenses. Consequently, the utilities insist, if the sulfur oxide restrictions are approved, their stockholders will be forced to bear the enormous cost of compliance, thus threatening the financial viability of the companies.

The EPA's response is that it has recommended to the Federal Power Commission and to state utility commissions that the electric companies be permitted an automatic pass-through of the cost of meeting pollution control regulations. These recommendations, however, are not bind-

ing. Indeed, the FPC has expressed unwillingness to go along with such costs. Although there may be a point beyond which refusal to allow the utilities to recover the cost of operations constitutes taking of property without just compensation,<sup>28</sup> the Administrator should realistically evaluate the likely consequences of scrubber installation on the profitability of the utilities.

Another disquieting lacuna in the Administrator's report relates to the utilities' expert testimony to the effect that Duquesne Light, Pennsylvania Power and Ohio Edison would experience grave difficulties in acquiring the capital needed to comply with the plan. An officer of a nationally known investment banking firm testified that a company could not obtain such financing "without very severe impact upon its ability to raise other capital requirements." Indeed he said the utility might not be able to attract such large sums on any terms.

The EPA discounts this testimony, arguing that it reflects an abnormal and temporary depression in the money market. The agency also declares that the difficulties can be alleviated by spreading the demands for capital over time as well as by prompt rate increases as pollution control costs are incurred. We have already discussed the difficulty experienced by utilities in expeditiously obtaining rate increases. Besides, the EPA presented no testimony regarding the probable state of the market during the period the utilities will be required to obtain the capital. Nor has the EPA shown to what degree its compliance schedules for these companies would alleviate the problem cited in the expert testimony.

Neither the Administrator's statement regarding the Pennsylvania plan nor the Arlington report on which he relies provides evidence that the agency has dealt with these three areas of concern. In short, the Administrator does not appear to have considered the rigors that the spe-

28. See, e.g., *Wabash Valley Electric Co. v. Young*, 287 U.S. 488 (1933); *Groesbeck v. Duluth, S.S. & A. Ry.*, 250 U.S. 607 (1919).

cific restrictions imposed by Pennsylvania will have on these companies and their customers. Rather, he seems to have viewed the plan only within the framework of the consequences of meeting the primary ambient standards nationally.

Approval of the implementation plan without investigating and resolving the serious economic questions raised by the objecting companies was "arbitrary, capricious [and] an abuse of discretion." While we are unable, on the present record, to uphold the Administrator's determination regarding economic feasibility, we cannot say his conclusion was necessarily incorrect. Without the expertise of an economist, we are in no position to judge the ultimate validity of the objections raised by the utilities. We hold here only that these arguments are too cogent and too critical to be disregarded. They merit further investigation and response by the EPA.<sup>29</sup>

Accordingly, the plan will be returned to the agency for clarification of these matters.

## V.

Since we have already determined that the matter must be remanded to the Administrator for consideration of adverse economic effects arising from the plan, it ordinarily would not be necessary to address the companies' technological objections to the plan as well. However, remanding the plan without confronting the technological matters might well have the effect of further prolonging already protracted litigation concerning a subject which Congress hoped to have settled as quickly as possible.<sup>30</sup> Consequently we shall briefly describe some concerns created by the present record regarding the technological feasibility of the Pennsylvania plan. Since the EPA will

29. See *Overton Park*, 401 U.S. at 416; *Portland Cement*, 486 F.2d at 393; *International Harvester*, 478 F.2d at 615; *South Terminal Corp. v. Environmental Protection Agency*, 504 F.2d 646, 665 (1st Cir. 1974).

30. See 42 U.S.C. §§ 1857c-5, 1857h-2.

be re-evaluating the emission limitation in any case, and since much additional information regarding flue gas desulfurization has become available subsequent to the Administrator's decision, it would seem unproductive to determine whether such concerns alone would be sufficient to disturb the Administrator's approval.

The utilities' chief technological objection to the sulfur oxide limitation is that there are, they claim, no scrubbers available for installation on utility-size coal-burning generators that will provide dependable service under the operating conditions extant in the electric utility industry. Therefore, the objectors say in effect although they are willing to participate in the development of scrubber technology through experimentation such as that at their Phillips and Mansfield power stations, it is technologically unworkable to install scrubbers on all their coal-burning plants.

EPA's answer to this criticism is that Congress recognized that the pollution control technology necessary to attainment of the primary standards had not been developed and intended the Act to force industry to formulate such technology.

We agree with the Administrator that the Act was designed to prod technological progress.<sup>31</sup> In determining the feasibility of an implementation plan for a given industry, therefore, the Administrator is not bound by the industry's recalcitrance in adopting new techniques. Nor must he concentrate solely upon the machinery presently available for ordinary use within the industry. Instead, he may make reasonable projections of future technological growth.<sup>32</sup>

31. See Senate Report No. 91-116, 91st Cong., 2d Sess. (1970); 116 Cong. Record 32902, 32919 (1970).

32. See *International Harvester v. Ruckelshaus*, 478 F.2d 615, 628 (D.C. Cir. 1973); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973); *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 433-34 (D.C. Cir. 1973); *CPC International v. Train*, Nos. 74-1447-74-1449 (8th Cir., May 5, 1975), slip op. at 37, 40.

The Administrator's authority to make projections, however, is not unbounded. "His latitude for projection is subject to the restraints of reasonableness, and does not open the door to 'crystal ball' inquiry. . . . One must distinguish between prediction and prophecy."<sup>33</sup>

The development period reflected in the projections cannot exceed the time available to the industry before the technology must be applied.<sup>34</sup> Here the plan necessitates that the utilities commence scrubber installations immediately. Therefore, if workable scrubbers are not now available for coal-burning boilers, the anticipated enhancement must be such that machinery currently constructed may be economically modified to incorporate the technological improvements that will render scrubbers practicable for this industry.

Four basic problems, the utilities argue, make scrubbers unreliable: plugging, scaling, corrosion and equipment failure.<sup>35</sup>

The Administrator contends, in effect, that on the basis of the Arlington report he reasonably projected that scrubbers are or will be available for the objecting utilities. The Arlington report states:

Although some FGD [flue gas desulfurization] installations in the U.S. have encountered reliability problems . . . , the panel finds that each of these problems *can be* solved through careful system design and proper control of system chemistry. Testimony at the hearing by utility and vendor witnesses revealed that all of the above problems *have been* solved at one or more full scale FGD installations in this country or Japan. [emphasis added]

33. *International Harvester*, 478 F.2d at 629, 642; *Portland Cement*, 486 F.2d at 391; *CPC International*, slip op. at 37, 40.

34. See *International Harvester*, 478 F.2d at 629; *Portland Cement*, 486 F.2d at 391-92.

35. Plugging is the accumulation of soft solids in the boiler and the scrubber preventing the passage of gases through the system. Scaling is the deposition of hard material on the surfaces of control equipment. Corrosion is the deterioration of the system resulting from interaction between the surfaces of the machinery and the chemical compounds flowing through the system.

As support for its conclusion, the Arlington panel relied primarily on the experience with the following installations: (1) the Mitsui Miike scrubber; (2) Louisville Gas and Electric's Paddy's Run scrubber; and (3) Japan Synthetic Rubber Company's Chiba scrubber.

These installations are not valid evidence, the utilities assert, that scrubbers will function dependably when used with a coal-burning generator under the conditions prevalent at an American utility plant.

The Mitsui scrubber is part of an industrial power plant rather than a utility one. Thus the companies contended that although it is admittedly used with a coal-burning boiler, its experience is not comparable because the Mitsui unit does not have to adjust to the wide and frequent fluctuations in power output and flue gas flow rate common to the operation of a utility boiler. The companies further allege that the Mitsui scrubber has been operated as an "open loop" system discharging liquid wastes into the ocean. As the EPA concedes, the water pollution resulting from open loop systems is unacceptable in this country.

In addition, the utilities assert that the Mitsui scrubber does not establish the feasibility of scrubbers for them because they cannot obtain the scrubbing agent—carbide sludge—used at Mitsui to remove the sulfur oxide from the stack gases. The difference in composition between carbide and limestone sludge, the utilities say, has a critical effect upon the plugging and scaling problems. Also, the companies claim that the Mitsui generator, unlike their own, has not had to operate on coals with a wide variety of sulfur content.

The EPA responds by citing testimony that the Mitsui scrubber has operated in a closed loop mode at least for short durations. The agency points to statements of a general nature that there have been variations in the electric output demanded of the Mitsui generator and in the sulfur content of the coal it has utilized. Some wit-

nesses at the Arlington hearings, especially vendors of scrubber equipment, declared that they did not "believe" that the difference in compounds used to react with the sulfur oxide would be significant.

We find two uncontroverted facts with respect to the Mitsui system particularly disturbing. First, the owner of the Mitsui scrubber does not plan to utilize the same desulfurization process in subsequent scrubbers. Second, Chemico, the designer and installer of the Mitsui scrubber, has so far been unsuccessful with the experiments at Duquesne Light's Phillips station. Since neither of these factors has been explained by the EPA, it would not appear that the Mitsui unit is proof that scrubbers are available for installation by the objecting utilities.

With respect to the Paddy's Run scrubber, the utilities object that it is only a 79 megawatt demonstration unit operated intermittently with a peak-load generator rather than with a full utility-size-base load generator. They point out that at the time of the Arlington hearings the unit's longest period of sustained operation was 45 days. They also note that, like the Mitsui scrubber, Paddy's Run circulates a scrubbing compound not available to the Pennsylvania power companies. At the Arlington hearings representatives of both Louisville Gas and Electric, the owner of the Paddy's Run scrubber, and of the FPC testified that Paddy's Run had not demonstrated sufficient reliability for widespread commercial application. In addition, as with the Mitsui scrubber, the operator of the Paddy's Run scrubber has decided not to use the same process in future attempts at full-scale installations.

The third scrubber accorded particular importance in the Arlington report is a 75 megawatt industrial oil-fired boiler owned by the Japan Synthetic Rubber Company. The utilities, disputing the feasibility of scrubbers, provided the Administrator with considerable evidence that experience with oil-fired boilers is not transferable to coal-burning boilers. They also point out that the scrubber used

by Japan Synthetic Rubber unacceptably discharges sodium sulfate waste into surrounding waters.

In defense of the Administrator's finding of technological feasibility, the EPA directs our attention to optimistic testimony regarding the transferability of the Paddy's Run and Japan Synthetic Rubber processes to full scale coal-burning public utility generators and concerning the dependability of scrubbers in general. One witness testified that "stack gas scrubbing *will be* useful and valuable" in controlling sulfur oxide emissions. Another indicated that "it looks like we might have that one [difficulty] under control." "Many" of the problems previously experienced, it was said, "are well underway to having adequate solutions."

Much of the testimony emphasized by the EPA as support for the feasibility of scrubbers is, however, equivocal. The agency focuses our attention on testimony that "proper engineering judgments [and] selection of materials could eliminate both erosion and corrosion problems." The same witness continued, however, "It still takes time to develop this knowledge, I think." Also singled out by the EPA is the following opinion: "[T]his tends to be a very complicated control system, and I think we have mastered this [scaling problem], not absolutely completely, and we don't want to lead anybody to believe that we have. But so far we have had some very encouraging results."

The proceedings here reflect the significant progress that has occurred—at least in part because of the EPA's assiduous efforts to assure that primary air standards are met as soon as possible—in the development of scrubber technology since passage of the Act. The present record does not, however, seem to contain the technical data necessary for a rational determination that past experience with flue gas desulfurization devices, under conditions admittedly at variance from those that will be experienced by the protesting utilities, provides a sufficient basis for widespread installation of scrubbers. There is little to specify

at what pace the technology will develop, and there is also a paucity of testimony regarding the cost of adjustments necessary to render currently produced equipment effective and reliable. Without some evidence that such technical data was available to the Administrator when he approved the emission limitations, we would be hesitant to conclude that he had not acted arbitrarily.<sup>36</sup>

It is also averred by the companies that scrubber technologies are not available for current installation because no adequate method of waste disposal has been discovered. The Arlington report reaches the conclusion that lime and limestone scrubbers are the best ones adapted for immediate installation on existing coal-burning generators. The EPA concedes that such scrubbers produce vast amounts

36. The Court is cognizant that in *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 440 (1973) the District of Columbia Circuit, in approving the federal emission standards for new sources of pollutants held that the availability of flue gas desulfurization devices for coal-burning power plants was adequately demonstrated. That decision was based on a different record from that presently before this Court. In promulgating those emission limitations the Administrator had pointed primarily to the Meramac No. 2 station of the Union Electric Co. and the Lawrence No. 4 unit of the Kansas Power and Light Co. as demonstrating the availability of scrubber technology. The Arlington hearings, however, established that neither of those is currently regarded as a successful operation, and the Meramac station has been abandoned.

In *Commonwealth v. Pennsylvania Power Co.*, 337 A.2d 823 (1975), the Pennsylvania Supreme Court affirmed a ruling that Pennsylvania Power was not in contempt of court for not complying with the Pennsylvania implementation plan in 1972. The ruling is based in part upon the Supreme Court's affirmation of the trial court's conclusion that in 1972 scrubbers had not been shown to be technologically feasible. The Pennsylvania courts did not intimate any views regarding the feasibility of scrubbers at any later date.

A hearing panel of the Ohio EPA, see footnote 26, has determined after an adversary hearing that scrubbers are not presently available for installation by coal-burning utilities. That decision has been stayed pending review by the director of the state EPA.

The Seventh Circuit in *Indiana & Michigan Power Co. v. Environmental Protection Agency*, 509 F.2d 839, 843 (1975) has upheld the Administrator's approval of the Illinois and Indiana sulfur oxide emission restrictions in spite of allegations that meeting such limitations is technologically infeasible. That Court decided, however, that, contrary to our decision in *Getty Oil, Duquesne Light I*, and *St. Joe Minerals*, the Administrator is not required to evaluate the technological and economic feasibility of the plan before approving it. Rather, that court held, those factors should be considered in enforcement proceedings.

An Illinois appellate court, however, in *Commonwealth Edison v. Pollution Control Board*, 25 Ill. App.3d 271, 323 N.E.2d 84 (1975), has held that state's sulfur oxide emission controls arbitrary and unreasonable because, *inter alia*, scrubbers had not been demonstrated to be workable.

of a water-saturated waste product with a consistency similar to that of toothpaste.

The utilities allege that no one—including the operators of the Paddy's Run and Mitsui plants—has yet devised a system for hardening this sludge into a form which may be disposed of as landfill or as building material. They also contend that because of the location of their plants in already-developed communities there is no feasible site upon which they can deposit the tremendous amount of sludge that is to be expected from a scrubber operating on a full-scale utility power plant. In addition, the sludge, say the utilities, presents a serious hazard of groundwater pollution.

A two-fold response is presented by the EPA. First, it contends that there are scrubbers that, through the use of scrubbing agents other than lime or limestone, produce saleable "waste products," such as sulfuric acid, instead of "throwaway" wastes. Both of the agency's principal examples of such systems, however, have been successfully utilized only on oil-burning boilers. In addition, one of them—that belonging to Japan Synthetic Rubber—ejects sodium sulfate into the sea, as already noted.

The EPA's second proffered solution to the waste disposal problem is the alleged availability of systems which, according to the agency, will harden and detoxify the sludge. As in its discussion of scrubber dependability, the EPA notes that the Arlington hearings occasioned much optimistic testimony, particularly from vendors of waste disposal systems, to the effect that the differences between this and other industrial wastes "are not huge" and that they believed the disposal problem could be solved. Again, however, the Administrator has not demonstrated that such optimism is founded upon scientific information from which he could reasonably conclude that the waste problem will be cured soon enough for the solution to be incorporated in scrubbers constructed now. It

would seem that the choice of a scrubbing agent would be one of the first steps in scrubber design.

Landfill sites adequate for the quantity of sludge the utilities' coal-burning plants would produce with the installation of limestone scrubbers are available, the EPA suggests, throughout the eastern United States, particularly in abandoned mines. This proposal, however, does not appear to have taken into account the cost of transporting the waste to these areas.

Since the sulfur oxide emission limitations will be re-examined by the Administrator in any case, it is anticipated that more recent experience within the field of flue gas desulfurization will dispel the uncertainties outlined above concerning the workability of scrubbers.

An additional challenge mounted against the sulfur oxide restrictions is that even if scrubbers are available, no scrubber is efficient enough to meet the Pennsylvania standards, which are twice as stringent as the federal limitations on new power plants. Assuming that the reliability of scrubbers has been adequately demonstrated, the evidence regarding the efficiency of those scrubbers at removing sulfur oxides from the air constituted a reasonable basis for the Administrator's conclusion that the Pennsylvania levels are achievable.

The utilities also contend that approval of the plan was arbitrary because the plan is predicated upon incorrect data and assumptions regarding the severity of the pollution problem and the topography of the regions in which they operate. Upon review of the evidence introduced at the various hearings on the plan, we cannot say that the Administrator committed a "clear error of judgment" in this regard.

The final complaint of the utilities is that the Pennsylvania plan was unreasonable in setting a July, 1975 deadline for meeting the sulfur oxide limitation. The Administrator contends that section 1857c-5(a)(2)(A)(i) in effect imposes that time limit.

Section 1857c-5 contemplates approval of a plan if it "provides for the attainment of such primary standard as expeditiously as practicable but . . . in no case later than three years from the date of approval of such plan. . . ." Since, as a result of our decision today, the Administrator has not yet given final approval to the plan, that section does not lock him into a July, 1975 deadline. It is now obvious that compliance cannot be achieved within the time originally set forth in the plan. On remand, therefore, the Administrator should ensure that whatever implementation plan is eventually approved incorporates a reasonable period for compliance by Duquesne Light, Pennsylvania and Ohio Edison.

## VI.

Accordingly, the matter will be remanded to the Administrator for further consideration of the economic feasibility of the sulfur oxide emission restrictions in the Pennsylvania plan and for a determination of a reasonable date for compliance by the petitioning utilities. The Administrator is also directed to evaluate the technological feasibility of the emission restrictions in light of more recent developments. Proceedings should be conducted consistent with this opinion and as previously indicated in our order of June 5, 1973.

A True Copy:

Teste:

*Clerk of the United States Court of Appeals  
for the Third Circuit.*

## APPENDIX B

Section 110(a)(2) of the Clean Air Act, as amended, 84 Stat. 1680, 42 U.S.C. 1857c-5(a)(2), provides as follows:

"(2) The Administrator shall, within four months after the date required for submission of a plan under paragraph (1), approve or disapprove such plan, or any portion thereof. The Administrator shall approve such plan, or any portion thereof, if he determines that it was adopted after reasonable notice and hearing and that—

"(A) (i) in the case of a plan implementing a national primary ambient air quality standard, it provides for the attainment of such primary standard as expeditiously as practicable but (subject to subsection (e) of this section) in no case later than three years from the date of approval of such plan (or any revision thereof to take account of a revised primary standard); and (ii) in the case of a plan implementing a national secondary ambient air quality standard, it specifies a reasonable time at which such secondary standard will be attained;

"(B) it includes emission limitations, schedules, and timetables for compliance with such limitations, and such other measures as may be necessary to insure attainment and maintenance of such primary or secondary standard, including, but not limited to, land-use and transportation controls;

"(C) it includes provision for establishment and operation of appropriate devices, methods, systems, and procedures necessary to (i) monitor, compile, and analyze data on ambient air

quality and, (ii) upon request, make such data available to the Administrator;

"(D) it includes a procedure, meeting the requirements of paragraph (4), for review (prior to construction or modification) of the location of new sources to which a standard of performance will apply;

"(E) it contains adequate provisions for intergovernmental cooperation, including measures necessary to insure that emissions of air pollutants from sources located in any air quality control region will not interfere with the attainment or maintenance of such primary or secondary standard in any portion of such region outside of such State or in any other air quality control region;

"(F) it provides (i) necessary assurances that the State will have adequate personnel, funding, and authority to carry out such implementation plan, (ii) requirements for installation of equipment by owners or operators of stationary sources to monitor emissions from such sources, (iii) for periodic reports on the nature and amounts of such emissions; (iv) that such reports shall be correlated by the State agency with any emission limitations or standards established pursuant to this chapter, which reports shall be available at reasonable times for public inspection; and (v) for authority comparable to that in section 1857h-1 of this title, and adequate contingency plans to implement such authority;

"(G) it provides, to the extent necessary and practicable, for periodic inspection and testing of motor vehicles to enforce compliance with applicable emission standards; and

"(H) it provides for revision, after public hearings, of such plan (i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient

air quality standard or the availability of improved or more expeditious methods of achieving such primary or secondary standard; or (ii) whenever the Administrator finds on the basis of information available to him that the plan is substantially inadequate to achieve the national ambient air quality primary or secondary standard which it implements."